



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Medicine Lake National Wildlife Refuge

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Medicine Lake, MT 59247-9701

Telephone (406)789-2305



86/87WTR.MEM

MEMORANDUM

DATE: May 16, 1989

TO: Regional Engineer, Region 6
ATTN: Water Rights Specialist

FROM: Refuge Manager, Medicine Lake National Wildlife Refuge

SUBJECT: 1986 and 1987 Annual Water Use Reports

In response to your inquiry we have checked our files and are unable to find Annual Water Use Reports/ Management Plans for 1986 and 1987. It is apparent that reports for these years were not prepared.

In attempting to reconstruct these reports, I have found that water elevations readings for refuge lakes are also missing for those years. I have tried to contact former manager Gene Stroops for information on the subject but have not been able to reach him.

Attached is the information which I have found. We will continue to check for the missing information. If we come up with anything on lake water elevations for those years, I will forward it to you.

REC'D ENG
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USFWS

MEDICINE LAKE NATIONAL WILDLIFE REFUGE

1987 Water Use Report

NARRATIVE

The 1986-87 winter was the sixth consecutive year of snowpack being inadequate to recharge all refuge impoundments. We entered the year with a deficit of about 15,000 acre feet. Run-off from all sources was 9,316 acre feet.

There was some movement of water in the Big Muddy noted February 3. The radial gates at Indian Service Dam were close February 6. Another thaw occurred in the latter part of March and we began moving water into the Homestead Unit this month. The first 10 days of April brought the end of spring run-off. All pools were at management levels except for No. 12 Lake, Homestead Lake and Katy's Lake. Late July rains reached the diversion structure in early August.

Drawdown of Homestead Lake began July 7 for botulism control. Water levels were reduced from 1936.0 to 1933.5. Water was released from Medicine Lake to Homestead Lake beginning September 9. The water levels in homestead increased to 1935.5 by mid-October.

Table I. WATER USE BY TRIBUTARY STREAM - 1987

<u>Tributary Source</u>	<u>Acre Feet of Water</u>	
	<u>Diverted</u>	<u>Discharged</u>
Muddy Creek	5,050	3,748*
Lost Creek	-0-	
Sheep Creek	-0-	
Sand Creek	1,310	
Cottonwood Creek	2,086	
<u>Lake Creek</u>	<u>870</u>	3,375**
Total	9,316	

* Water discharged from Homestead Lake in July and August.

** Water discharged from Medicine Lake to Homestead Lake in Sept.

Table II. MONTHLY RECORD OF GAGE READINGS - 1987

LAKE NAME	Medicine	Gaffney	Sayer	Bay	Deep	Long	#10	#11	#12	Katy's	Homestead
Operational											
Elevation	1943.02	1945.00	1945.00	1946.02	1945.00	1945.10	1953.00	1956.00	1954.00	1937.65	
January											N/A
February											N/A
March											1934.74
April											N/A
May											1937.13
June											1936.84
July											1936.00
August											1934.50
September											1933.50
October											1935.50
November											1935.20
December											*****

* Estimate - water level to low to read on gage.

** Water elevation surveyed with a level.

N/A = Not Available

1987

WATER MANAGEMENT PLAN/
USE REPORT
SHORT FORM

CARLSON WPA

Station Name

NOT RECEIVED YET

Water Right No.

3/87

Date of Inspection

UNNAMED COULEE

Source(s)

Water Diverted: Yes ___ No X

Means of Diversion DAM

Rate NATURAL FLOW UP TO 40

ACRE FEET.

*Impoundment(s): Yes X No ___

Water Level DRY

(Elevation or Est. Storage Amount)

*Well(s):

Free Flowing _____ gpm

Pumped _____ gpm

Type of Use:

Surface Irrigation _____

(Crop) _____

Fish & Wildlife X

Stock _____

Domestic _____

Other _____

Overall Climactic Conditions:

DROUGHT; NO RUNOFF IN 1987.

Condition of Facilities:

GOOD; THE DAM IS THE STATE HIGHWAY ROADBED.

Proposed Water Program:

NO CONTROL; MAXIMUM WATER LEVEL ESTABLISHED BY CULVERT IN
HIGHWAY ROADBED.

Comments:

THIS REPORT COMPLETED MAY 15, 1989.

*If more than one impoundment or well, please attach additional
sheet.

1987

WATER MANAGEMENT PLAN/
USE REPORT
SHORT FORM

JOHNSON LAKE WPA

3/87

Station Name _____
NOT YET RECEIVED
Water Right No. _____

Date of Inspection _____
UNNAMED COULEE
Source(s) _____

Water Diverted: Yes ___ No X

Means of Diversion DAM
Rate NATURAL FLOW UP TO 1050
ACRE FEET

*Impoundment(s): Yes X No ___

Water Level DRY
(Elevation or Est. Storage Amount)

*Well(s):
Free Flowing _____ gpm
Pumped _____ gpm

Type of Use:
Surface Irrigation _____
(Crop) _____
Fish & Wildlife X
Stock _____
Domestic _____
Other _____

Overall Climactic Conditions:
DROUGHT; NO RUNOFF IN 1987.

Condition of Facilities:

GOOD

Proposed Water Program:

NONE

Comments:

REPORT NOT PREPARED IN 1987.

REPORT COMPLETED ON MAY 15, 1989.

*If more than one impoundment or well, please attach additional sheet.

MEDICINE LAKE NATIONAL WILDLIFE REFUGE

1986 Water Use Report

NARRATIVE:

The 1985-86 winter was the fifth consecutive year of snowpack being inadequate to recharge refuge impoundments. We entered the year with a deficit of 33,488 acre feet. Run-off from all sources was 22,665 acre feet.

Operational levels were reached only in No. 10 Lake and Sayer Bay. Katy's Lake continued to decline in water levels because we were not able to raise No. 12 Lake enough to flow into Katy's Lake. Homestead Lake was about one half foot below operational level with waters from Big Muddy Creek run-off. However, we released water in August because of a botulism die-off. The refuge water deficit at freeze-up was approximately 15,000 acre feet.

Table I. WATER USE BY TRIBUTARY STREAM - 1986

<u>Tributary Source</u>	<u>Acre Feet of Water</u>	
	<u>Diverted</u>	<u>Discharged</u>
Muddy Creek	18,590	3,127*
Lost Creek	-0-	
Sheep Creek	-0-	
Sand Creek	916	
Cottonwood Creek	2,370	
<u>Lake Creek</u>	<u>789</u>	<u>3,080**</u>
Total	22,665	

* Water discharged from Homestead Lake in August.

** Water discharged from Medicine Lake to Homestead Lake in Sept.

1986

WATER MANAGEMENT PLAN/
USE REPORT
SHORT FORM

CARLSON WPA

4/86

Station Name _____

Date of Inspection _____

NOT RECEIVED YET

UNNAMED COULEE

Water Right No. _____

Source(s) _____

Water Diverted: Yes _____ No ☒

Means of Diversion DAM
Rate NATURAL FLOW UP TO 40
ACRE FEET.

*Impoundment(s): Yes ☒ No _____

Water Level DRY
(Elevation or Est. Storage Amount _____)

*Well(s):

Free Flowing _____ gpm

Pumped _____ gpm

Type of Use:

Surface Irrigation _____

(Crop) _____

Fish & Wildlife ☒ _____

Stock _____

Domestic _____

Other _____

Overall Climactic Conditions:

NO RUNOFF IN 1986.

Condition of Facilities:

GOOD. THE DAM IS THE STATE HIGHWAY ROADBED.

Proposed Water Program:

NO. CONTROL; MAXIMUM WATER LEVEL IS ESTABLISHED BY A CULVERT IN
THE HIGHWAY ROADBED.

Comments:

THIS REPORT COMPLETED MAY 15, 1989.

*If more than one impoundment or well, please attach additional
sheet.

1986

WATER MANAGEMENT PLAN/
USE REPORT
SHORT FORM

JOHNSON LAKE WPA

4/86

Station Name

Date of Inspection

NOT YET RECEIVED

UNNAMED COULEE

Water Right No.

Source(s)

Water Diverted: Yes ☐ No ☒

Means of Diversion DAM
Rate NATURAL FLOW UP TO 1050
ACRE FEET.

*Impoundment(s): Yes ☒ No ☐

Water Level _____
(Elevation or Est. Storage Amount)

*Well(s):

Free Flowing _____ gpm

Pumped _____ gpm

Type of Use:

Surface Irrigation _____

(Crop) _____

Fish & Wildlife ☒ _____

Stock _____

Domestic _____

Other _____

Overall Climactic Conditions:

DROUGHT; NO RUNOFF IN 1986.

Condition of Facilities:

GOOD

Proposed Water Program:

NONE

Comments:

REPORT NOT PREPARED IN 1986.

REPORT COMPLETED ON MAY 15, 1989.

*If more than one impoundment or well, please attach additional sheet.